How Cost of Attendance Stipends are Creating New Precedents in NCAA Athletics

RESEARCH THESIS

Honors Research Distinction in the Fisher College of Business at The Ohio State University

By: Callie DeCort
Primary Advisor: Dr. Ryan Ruddy
Secondary Advisor: Dr. Andrea Prud'homme

Wednesday, April 22nd, 2020

Table of Contents

Introduction

The problem being tested is: How are the new Cost of Attendance (COA) stipends implemented in 2015 affecting spending on women's and men's non-revenue sports? The research will test if increased COA stipends given primarily to student-athletes in revenue generating sports over the past few years will cause a decrease in spending on women's and men's non-revenue sports. This study can help universities understand the effect that COA stipends are having on universities and on student athletes in non-revenue sports. It is important to understand how money is now being circulated to "pay" athletes, and the effect that this will have on the rest of the athletic department budget.

With the world being in a global pandemic due to the COVID-19 crisis, many universities will be facing budget crises. It is now more important than ever to understand how universities went about making cuts for COA stipends, as a similar pattern is likely to emerge when universities start to make budgeting cuts due to the COVID-19 economic shutdown.

The thesis will go into more detail on the problem being investigated with anticipated results and information on how the data will be collected and how regressions will be analyzed in order to determine the significance of cost of attendance stipends on women's sports and men's non-revenue sports spending.

The study concluded that money being used for COA stipends appears to come from women's and men's sports operating budgets. The effect on men's operating expenses took a significantly larger toll than the effect on women's operating expenses, refuting the idea that COA stipends are causing a negative effect on women's sports spending. The continual increase in spending on men's revenue sports and the level increase in spending on men's non-revenue sports, supports the idea that the majority of the money taken from the operating expenses could

be coming from men's non-revenue sports, but cannot be said with any type of certainty. Further analysis would be needed to attempt to prove this.

Literature Review

Prior to the implementation of Cost of Attendance (COA) stipends, the NCAA had prohibited any payment beyond scholarships that cover both tuition and room and board. The decision to pay COA stipends stemmed from the hope that regulated COA stipends would replace under that table payments that have plagued the NCAA for years; however, the final push towards the implementation of the stipends came from an NCAA Class-Action Lawsuit filed in August of 2014.

Hagens Berman represented former NCAA football and basketball players in the antitrust class-action lawsuit against the NCAA and the power-five conferences (any school in one of the five major athletic conferences: The Big Ten, The Big Twelve, The Pac 12, The Southeastern Conference, and the Atlantic Coast Conference, as well as the University of Notre Dame). Berman claimed the NCAA and power-five conferences had agreed in violation of national antitrust laws to unlawfully cap the value of athletic scholarships, systematically colluding to disrupt the free market and deprive FBS athletes of the full economic benefits of their labor (12). The class-action suit stated that current NCAA scholarships value athletic scholarships thousands of dollars less per year than the actual cost to attend the university. This high-profile class-action suit led to the first step in the new era of paying college athletes, known as Cost of Attendance stipends.

According to NCAA bylaws, Cost of Attendance (COA) is "calculated by an institutional financial aid office, using federal regulations, that includes the total cost of tuition and fees, room

and board, books and supplies, transportation, and other expenses related to attendance at the institution" (2). The difference between the cost of attendance for the university and the full ride scholarship amount are being subtracted and as of 2015 the NCAA deemed it legal for universities to pay their student-athletes checks at their discretion by this amount, known as the COA stipend (generally ranging from $2,000 to $5,000 per year). The cost of attendance legislation was passed in January of 2015 when a panel composed of the power-five universities granted schools the option to give out the stipends on a 79-1 vote with Boston College being the only school to vote against the legislation (4).

These stipends can be given out monthly, by semester, in a lump sum, or whatever the program chooses to do (17). Some schools will even offer additional benefits, Nebraska, for example, provided all of their athletes with a MacBook Air. Some schools, like Missouri, are using the stipends to settle student-athlete debts before they give the remaining stipend amount to the athlete (9).

COA stipends also vary by year and school because federal law prohibits capping the stipend amount at less than a school's predetermined cost of attendance (7). COA stipends can differ by in and out of state students and whether or not a student lives on or off campus. The stipend amount can also differ by individual athlete, and be granted to certain sports but not others. (1). According to the NCAA, cost of attendance is "subject to federal guidelines [and] financial aid officers at each school determine the cost of attendance. Additionally, based on each school's policies, a student's cost of attendance can be adjusted based on his or her individual circumstances such as transportation, child-care needs and unusual medical expenses" (14). Athletes on partial scholarships can also receive partial COA stipends at the discretion of the university.

COA stipends have been extremely controversial to some schools, particularly the schools who cannot afford to issue out stipends to student athletes, and the registrar offices who want to keep COA amounts low for non-student athletes looking to attend the university. As can be expected not all FCS Division I schools are giving out COA stipends, because some smaller universities simply cannot afford the associated costs. This led to some athletic departments, such as Elon University, being vocally open about not wanting COA stipends to be allowed in the first place (17). Elon was a university who was initially opposed to COA stipends but began implementation in 2019 to men's and women's basketball players as Athletic Director, Dave Blank, said "It became pretty noticeable that we are increasingly facing a competitive disadvantage in recruiting in our region and our conference, and that cost of attendance could be an issue for that" (17).

Schools feel the continuous need and pressure to find money to pay for COA stipends. The Atlantic 10 conference required their schools to offer COA stipends in men's and women's basketball, but the amount given was completely up to the schools' discretion (14). As could be expected based on high revenue influxes, all power five schools have implemented cost of attendance stipends to all of their scholarship athletes (14). Schools such as James Madison offered COA stipends to men's and women's basketball, but decided in 2019 to also implement COA stipends to football players and all other scholarship athletes (14). Many schools after finding additional funding (which the research is trying to determine where the funding is coming from) implemented the same procedures, increasing the amount of sports that are given these COA stipends for increased competitive advantage in recruiting. As previous UNC Wilmington men's basketball head coach, Kevin Keatts, said, "Stipends are important for us because they allow us to stay relevant on the landscape of recruiting among schools on our level"

(15). The Horizon League and the Big South are among mid-major, non-power-five conferences to mandate that all members provide cost of attendance stipends (15). However, to what sports and what amount is left up to the institution itself. Competition between power five conferences and mid-major conferences over cost of attendance offerings does not even compare. For example, Ohio State budgeted $1.65 million for stipends in 2015, whereas Towson only budgeted $88,000 for COA stipends (7). Even at a budget of $1.65 million and the reigning 2014 football national champions with one of the highest-grossing athletic departments in the country, Ohio State only had the 10th highest COA stipend in the Big 10 for 2015 at $2,970 on average per scholarship athlete (10). According to university athletic directors, the goal is just to help out as many student-athletes as possible (9).

Some schools are able to afford the cost of attendance stipends by funding from the university and from the NCAA as well, but even for some smaller schools that is still not enough to cover the costs, because any amount given to men's sports has to be given to women's sports as well under Title IX. To help aid schools in the transition to affording paying out COA stipends to their athletes, some conferences, such as Conference USA, will help each of its schools by giving $450,000 to each school over the next three years to help with the transition. The NCAA in July of 2015 said they would distribute $18.9 million to Division I schools, about $55,000 per university, to help with the transition (11). Schools such as Rutgers had to receive a ten-million-dollar loan from the university on top of its subsidy to remain competitive with the rest of the Big Ten Conference until the conference renegotiates television contracts in 2021 (5).

A common main argument in favor of COA stipends is that most schools do not allow scholarship athletes to hold jobs during the sports season, so the stipends help cover the personal costs that a scholarship might not be able to cover. An athlete at BYU claims the stipend, "helps

her get by" (5). Other athletes, such as Deion Hair-Griffin, a wide receiver at the University of North Texas, will send money home to help his struggling family, however, others will "blow it all in one night at [bars] instead of paying their bills," an argument that can be used against the concept of COA stipends (8).

Another argument is that schools are making much more from student athletes than the university is losing by paying for the student athletes' tuition. In most states, the highest paid employees are university coaches. BYU athlete, Macias, argues that "We're the ones acting upon it and stepping onto the field and doing the actions, and we're not getting paid, but they are" (5).

However, the biggest worry with COA stipends is the fear that competition to have higher stipends than other athletic programs will cause COA stipends to increase tremendously, which could lead to other potential drawbacks. However, others argue that this would not happen as COA stipends are controlled by the financial aid office and not the athletic department, so that the general student body will be thought of before all of the student athletes, as the COA amount can affect student loans and federal funding (5). This fear was started because schools must calculate cost of attendance for student-athletes using the same policies and procedures for non-student athletes (15). Others also worry that athletic departments could persuade the financial aid office to inflate different categories to raise COA stipend amounts to increase competitiveness with other universities, but universities report stipend amounts to the federal government, which makes it difficult for schools to fudge COA figures (5).

However, there does become an opening for universities to manipulate the COA allowances to assist in recruiting more top athletes. Nick Saban, head football coach at the University of Alabama, came out worried that some schools were fudging numbers, and then within a year the University of Alabama offered one of the largest stipends in all of college

football. Even the head football coach at the University of Georgia stated, “We’ve been very creative in getting our number to a good spot” (13). Worries come about as it is not uncommon for cost of attendance amounts to fluctuate year to year, but it is strange when the numbers are rising substantial amounts, especially in categories such as travel. In other words, cost of attendance is a battle between the university wanting to keep the cost low for students and the athletic department wanting to keep the costs high for the athletes.

An issue facing these stipends is whether or not it will affect recruiting with athletes choosing schools that offer the highest stipend amount. After running an analysis, “estimates reveal that cost-of-attendance scholarship allowances were positively associated with football recruiting quality immediately following their implementation, indicating that the modest differences in stipends swayed student-athletes’ college choice” (5).

Bradbury and Pitts conducted an analysis and determined that power five conferences can give out higher COA stipends, by about $1,000 per student per year than non-power five conferences. Also, each additional $1,000 that a school puts towards COA stipends will result in improved recruiting rankings between 2.07- 4.35 spots (2). Recruiting advantages have continued to increase the amount of COA stipends given out to the athletes. A study conducted by USA Today Sports published in August 2015 discovered that major college athletes received $160 million in 2015 in additional benefits because of the implementation of COA stipends (15).

Smaller schools have to be creative to come up with enough money to pay out stipend amounts. BYU Associate Athletic Director, Dallan Moody states, “I’m very interested to see what will happen- if people say they can’t keep up anymore so they need to cut some things, or they lose a sport here or there or pull back on scholarships, or they find more revenue and TV contracts get bigger and bigger, or they don’t pay their coaches as much. It’s difficult to tell what

will happen" (6). An article put out by Gavin Fowler explores his fear that because so much money is being funneled out by universities (anywhere from around $500,000 to $1.5 million) this might only be possible by reducing spending on non-revenue sports (6). The football coach at the University of Louisiana at Lafayette said, "either we're going to have to raise the money [for stipends] or we're gonna deduct expenses" (3). This fear led to the formation of this research, the idea that these stipends could affect spending on women's sports and men's non-revenue sports.

Methodology

The problem being tested in more detail is: How are the new Cost of Attendance (COA) stipends implemented in 2015 affecting spending on women's and men's non-revenue sports? It is important to note that in the research a revenue sport is denoted as men's football and men's basketball.

The problem being tested will be explored through data collected on all FBS and FCS Division I schools. The hypothesis will be in the form of an ordinary least squares regression (OLS) with the following general equation format, Equation 1:

$$Outcome=ß_0+ß_1GiveOutThisYear+ß_2AfterCOAImplemented+ß_3EverGiveOutCOA+ß_4TotalRevenue$$

ran on the years 2013-2017 with the variables being: an interaction variable denoted as GiveOutThisYear (1 if a stipend was given out in that year, and 0 if one was not), a dummy variable that indicates whether or not COA stipends were allowed to be issued that year denoted as AfterCOAImplemented (0 if no, 1 if yes, or in other words 2013-2014=0, 2015-2017=1), and a dummy variable indicating whether or not the university ever gives out a COA stipend denoted as EverGiveOutCOA (0 if no, 1 if yes), and Total Revenue. Note that in Table Two instead of $ß_1$GiveOutThisYear, $ß_1$COAStipendAmount was used to determine with everything else held

constant how varying amounts of COA stipends by schools affected spending on COA stipends for men's revenue and non-revenue sports spending, as well as women's sports spending.

Outcomes of interest include: spending on women's sports, men's non-revenue sports, and men's revenue sports to see if the COA stipend had an effect on spending for women's sports and men's non-revenue sports. Regressions were also run with output: Men's and Women's Operating and Recruiting Expenses to separate out spending expenses into categories to dive deeper into the data. These variables in the form of an OLS regression and difference in differences will help us answer the above problem statement. All of the variables will be documented in an Excel file and an Ordinary Least Squares (OLS) regression will be run to determine the relationship between increased COA stipends and the variables in question.

A few regressions (Table 1 in the Appendix: Columns 4, 5, and 6) were run with Student Aid (Total, Men's, and Women's) as the outcome instead of spending, but with the same input variables just to show as a control that with the implementation of COA stipends that student aid amounts are increasing (which would be shown by a positive coefficient on the variable of interest).

Equation 1 will treat the schools that do not offer stipends as the quasi-control group. The difference in differences will be used to show if it can be determined with significance that after the implementation of COA stipends if spending on women's and men's non-revenue sports is negatively being affected. The coefficient of interest is β_1 (GiveOutThisYear). The difference in outcome between schools with and without a stipend before the stipend was permitted is β_3. After the COA stipend was permitted (in 2015) the difference in outcome between schools with and without a stipend is $\beta_1 + \beta_3$. Thus, β_1 serves as the difference in differences. Also, β_0 represents the average spending before 2015 for schools that never issued COA stipends, and β_2 shows the

difference in outcomes after stipends were permitted for schools that chose not to pay the stipends. Finally, revenue was included in the regression input to control for revenue changes over time.

All of the data required to run the regression model can be found on the Equity in Athletics Data Analysis (EADA) database website, a CBS Sports Article, and an ESPN sports article (Data Collection: 10, 33,16). The EADA is public information that comes straight from the NCAA and will provide all of the numbers for spending on women's and men's non-revenue sports from 2013-2017, as well revenue figures for the conferences that are being explored, which is all FBS and FCS Division I schools. The CBS and ESPN Sports articles then go into detail with a list of all the schools in FBS and FCS Division I football and states which schools give out cost of attendance stipends and the exact amount that each school gave out for the 2015-2016 school year. All of the other years were found in a more difficult manner, through looking on individual collegiate websites and/or other documented university attendance cost sources.

Collecting data from both larger schools (FBS institutions) and smaller schools (FCS institutions) will help give a fuller picture as to the effect COA stipends have and their expected differences based on the size of their institution and the size of their athletic departments.

This study can help universities understand the effect that COA stipends are having on universities and student athletes in non-revenue sports. It is important to understand how money is now being circulated to "pay" athletes, and the effect that this will have on the rest of the athletic department budget and university as a whole. Understanding how COA stipends are effecting the amount of spending that can be spent on women's and men's non-revenue generating sports is necessary to potentially come up with a way to restructure the athletic department budget so that these sports are not being overlooked at the expense of the stipends.

Anticipated Results

It is expected that increased COA stipends given primarily to student-athletes in revenue generating sports over the past few years will cause a decrease in spending in women's and men's non-revenue sports. It is also expected that more money will be circulated throughout the athletic department, with less money being funneled back to the rest of the university. After running the regression, it will be expected that $ß_1$ from Equation 1 will be negative for men's non-revenue sports spending and women's sports spending, but positive for men's revenue sports spending with corresponding p-values of under 0.05 (95% significance level) to show that offering COA stipends has a negative effect on the amount of spending on women's and men's non-revenue generating sports, but will not negatively affect spending on men's revenue sports.

These regressions will hopefully serve to help universities understand how COA stipends are effecting the amount of spending that can be spent on women's sports and men's non-revenue generating sports, to possibly come up with a way to restructure the athletic department budget so that these sports are not being overlooked at the expense of the stipends.

Results and Interpretation of Results

The first table referenced in the appendix as Table 1 ran a regression on equation 1 with outcomes in columns 1, 2, and 3 as follows: Women's Sports Spending, Men's Non-Revenue Sports Spending, and Men's Revenue Sports Spending. The regression showed that spending actually increased in schools where COA stipends were given out. This could be said with a 90% significant level on women's sports and a 99% significant level on men's revenue sports. However, the analysis could not be determined with any reasonable amount of significance on men's non-revenue sports spending. These three regressions showed, as expected, that revenue

sports spending was in no way negatively impacted by the COA stipends. The regressions were also able to refute the claim that COA stipends will hurt spending on women's sports.

Columns 4, 5, and 6 in Table 1 ran regressions on Equation 1 with outcomes for Total Student Aid, Men's Student Aid, and Women's Student Aid. This was done just to show the steady increase in student aid and to show that the money for COA stipends was indeed being factored into athletic department expenses and causing a significant impact. All three regressions yielded the same expected results. In each particular year that stipends were given and at any school where stipends were ever given out student aid numbers skyrocketed. All this can be said with significance levels way above the widely accepted 95% significance level.

Table 2 in the Appendix again ran a regression on equation 1 with outcomes: Women's Sports Spending, Men's Non-Revenue Sports Spending, and Men's Revenue Sports Spending. The difference between the regression done in Table One and Table Two lies within a change of one of the inputs. The interaction term, GiveOutCOAThisYear, was swapped with the variable COAStipendAmount. This variable was a quantitative variable that gave the COA numbers per year for each school. One assumption that was made, that could have bias upon the results is the COA amount that was given out in the first year at that school was assumed to be the COA amount given for the remaining years for that university through 2017. From this table, the only conclusion that was shown to be statistically significant was that COA stipend amounts increased men's revenue sports spending. This can be said to a 99% significance level.

After running nine different regressions, the only concrete solution that could be determined with significance was that COA stipends were shown to increase spending on women's and men's revenue sports at some statistically significant amount. However, no definitive conclusion was able to be made regarding the impact of COA stipends on men's non-

revenue sports. This was a stumping point in the research. The money was coming from somewhere, but the data had not yet shown what portion of the athletic department budget was being significantly negatively impacted. So, four more regressions were run. Both operating and recruiting expenses are a part of the total spending budget, so these two categories (for both women and men) were dispensed to determine if operating or recruiting expenses were effected by COA stipends.

Table three in the Appendix ran a regression on Equation 1 with outcomes: Women's Operating Expenses, Men's Operating Expenses, Women's Recruiting Expenses, and Men's Recruiting Expenses. In years where COA stipends were given out, operating expenses plummeted for both men's and women's sports. Both had p values below 0.05, showing with significance that operating expenses dropped in years where COA stipends were given. This showed that COA stipends were having a statistically significant effect on sports operating budgets and that the money being used to pay out COA stipends was coming from the men's and women's operating budgets. It is unknown if non-revenue men's sports are effected more than men's revenue sports, or if women's sports are effected more than men's sports. Further analysis and investigation would be needed to determine this result, which will be done through a summary statistics table described later.

The analysis for women's and men's recruiting expenses showed that men's and women's recruiting expenses rose in years when COA stipends were given out. While the men's analysis can be said with 99% significance, no conclusion can be drawn with significance for the women's recruiting expenses increase as the 0.33 p-value is well above any reliable significance level. So, while we know the men's recruiting budget was not negatively affected by COA stipends, no conclusion can be made about effects on the women's recruiting budget.

A summary statistics table in the Appendix denoted at Table Four was created to further illustrate the above results, showing that spending on all men's and women's sports increased, as well as recruiting expenses, but all operating expenses fell. The summary statistics show the average dollar amount for each category being explored, separated by schools that do and do not give out COA stipends as well as by years (before and after the COA stipends were allowed to be administered). There is also a column that shows the net increase/ decrease from before and after the implementation of the COA stipends. The summary statistics table shows that spending and expenses are higher for schools that give out COA stipends, which makes sense as those are the schools with the most amount of money. The statistics also show that men's operating expenses are declining at a much faster rate for schools that give out COA stipends versus those that do not. The men's operating expenses are also declining at a larger percentage than the woman's operating budget. This shows that the men's operating budget is being drawn on more than the women's operating budget for paying out the COA stipends.

The main conclusion drawn from the research is that it appears as if the money used to pay COA stipends is coming from the men's and women's operating budgets. It also appears that the portion coming from the men's budget is proportionately significantly higher than the women's budget, refuting the idea the COA stipends hurt women's sports. Further research would need to be done though to determine if more money is coming from the men's non-revenue sports operating budget than the men's revenue sports operating budget.

Analysis of Graphs

The first graph referenced in the appendix shows the average spending on sports that implemented cost of attendance stipends in 2015 for women's sports, men's non-revenue sports,

and men's revenue sports. The graph shows relatively little increase in spending on men's non-revenue sports and women's sports after the implementation of COA stipends, despite revenues increasing. The graph also shows a huge spike in men's revenue sports spending from 2014 to 2015 and 2015 to 2016. This could be because of the fact that most stipends are being given to men's revenue sport athletes. However, this could also potentially be the first step to answer the looming question left in the results. This would be that men's non-revenue sports are taking a much larger hit in operational expenses than men's revenue sports are, which appears to most likely be the case.

Graph Two in the Appendix shows that schools with COA stipends have more athletes. This is an obvious conclusion, as those schools are bigger schools with more teams and thereby more athletes. The graph also denotes that the number of athletes at a school increased at a higher rate for sports that never gave out COA stipends, leading to a new question, do these stipends lead to having to cut sports to have enough capital to be able to pay the stipends, or are there other factors involved? Another question that the research did not address, but would be an interesting question to solve and the above research could be used as a base starting point.

Graph Three in the Appendix shows the average revenue from 2015-2017 for Division I Schools (FBS and FCS schools). This just shows that the schools who give out COA stipends have higher revenue streams than those who do not. It also shows how big the disparity is between men's revenue for schools who do and do not give out stipends, verses the women's difference is practically negligible. This makes sense as big budget programs for men's sports are the money makers, whereas female sports never generate much revenue and sometimes the smaller schools have better female athletic programs than larger schools, a data point not as common in men's sports.

Overall, the graphs serve to show general trends and a visual reference of some of the key parts of the data in order to further represent the conclusion and show the accuracy of the given data.

Conclusions and Significance of Research

To reiterate, the main conclusion drawn from the research is that it appears as if the money used to pay COA stipends is coming from the men's and women's operating budgets. It also appears that the portion coming from the men's budget is proportionately significantly higher than the women's budget. It would also appear that more money is coming from the men's non-revenue sports operating budget than the men's revenue sports operating budget, but further research would need to be done to prove this with significance.

This study showed how COA stipends are being paid for and the potential negative effect they could have on men's non-revenue sports. This is data that has not before been collected or analyzed. The data can be extrapolated further to delve in deeper into money circulation within NCAA university athletic departments. The research serves as an eye-opener to see where money does and does not seem to be a priority within both athletic departments and schools.

Acknowledgements

I would like to thank Dr. Ryan Ruddy and Dr. Andrea Prud'homme for their expertise and mentoring through the creation of this research. I can only hope that this research will go on to educate those both in and out of sports, and serve as a foundation for further research upon the subject.

Appendix: Tables

Table 1: Key Regression Results Summary Set Number One

Regression Analyses: Set One						
	Women's Spending	Men's Non-Revenue Spending	Men's Revenue Spending	Total Student Aid	Men's Student Aid	Women's Student Aid
Constant	2595405.677*** (167333.2396)	1158062.039*** (126673.8244)	150823.4921 (349964.4968)	3156632.457*** (201660.2966)	1698833.86*** (114191.0921)	1486279.775*** (96135.22482)
Give out COA this year	493617.4855* (263563.4365)	145015.7279 (199521.5568)	2004632.111*** (551222.4927)	762204.3368*** (317631.3379)	452024.6233*** (179860.2402)	307128.0251** (151420.7834)
After COA Implemented	263208.672 (205597.3042)	119603.402 (155640.3072)	258144.0378 (429990.8213)	333064.8052 (247773.9238)	161730.6584 (140303.1506)	173156.2027 (118118.451)
Ever Give out COA	689341.7188*** (216648.7864)	285105.0819* (164006.4484)	2909978.278*** (453104.1394)	1429823.215*** (261092.5278)	977494.5419*** (147844.8728)	421084.1654*** (124467.678)
Total Revenue	0.166184915*** (0.002625811)	0.099805021 (0.001987779)***	0.391027335*** (0.005491681)	0.09496024*** (0.003164475)	0.051103265*** (0.001791899)	0.043743241*** (0.001508564)
Observations	1260	1260	1260	1260	1260	1260
R Square	0.832249928	0.730956094	0.871993614	0.595064804	0.590813006	0.551250029

*Negative numbers are denoted in red
*Standard Errors are in parenthesis

Significance Keys:
99% Confidence= ***
95% Confidence= **
90% Confidence= *

Table 2: Key Regression Results Summary Set Number Two

Regression Analyses: Set Two			
	Women's Spending	Men's Non-Revenue Spending	Men's Revenue Spending
Constant	2473436.033*** (158910.3059)	1095341.084*** (120176.375)	297099.659924664 (329963.2179)
COA Stipend Amount	41.44863895 (59.75482456)	8.544731695 (45.1897576)	662.780757271563*** (124.0756167)
After COA Implemented	462258.1573*** (184933.4365)	220232.2935 (139856.4422)	455600.228260424 (383997.9507)
Ever Give out COA	881308.5265*** (196415.8434)	190574.3677 (148540.0454)	2779621.27019184*** (407840.1547)
Total Revenue	0.166398873*** (0.002644878)	0.10000244*** (0.002000196)	0.388685340347022*** (0.005491855)
Observations	1260	1260	1260
R Square	0.831845549	0.730850514	0.873520342

*Negative numbers are denoted in red

*Standard Errors are in parenthesis

Significance Keys:
99% Confidence= ***
95% Confidence= **
90% Confidence= *

Table 3: Key Regression Results Summary Set Number Three

Regression Analyses: Set Three				
	Women's Operating Expenses	Men's Operating Expenses	Women's Recruiting Expenses	Men's Recruiting Expenses
Constant	415764.903*** (38913.29383)	646361.3059*** (103792.6375)	53115.3447*** (5763.986156)	50412.84023*** (16170.12892)
Give out COA this year	131819.3212** (61291.59678)	1359020.389*** (163481.83)	8792.293504 (9078.746119)	82946.29624*** (25469.26574)
After COA Implemented	92155.59808** (47811.5904)	585267.3305*** (127526.8831)	2576.795159 (7082.035933)	8529.050162 (19867.74966)
Ever Give out COA	198169.5651*** (50381.6092)	920386.2252*** (134381.842)	26080.80138*** (7462.716963)	18737.59674 (20935.7018)
Total Revenue	0.029576931*** (0.000610632)	0.037169409*** (0.001628725)	0.004626723*** (9.04491E-05)	0.013619961*** (0.000253743)
Observations	1260	1260	1260	1260
R Square	0.734076678	0.443339328	0.765308416	0.778963098

*Negative numbers are denoted in red

*Standard Errors are in parenthesis

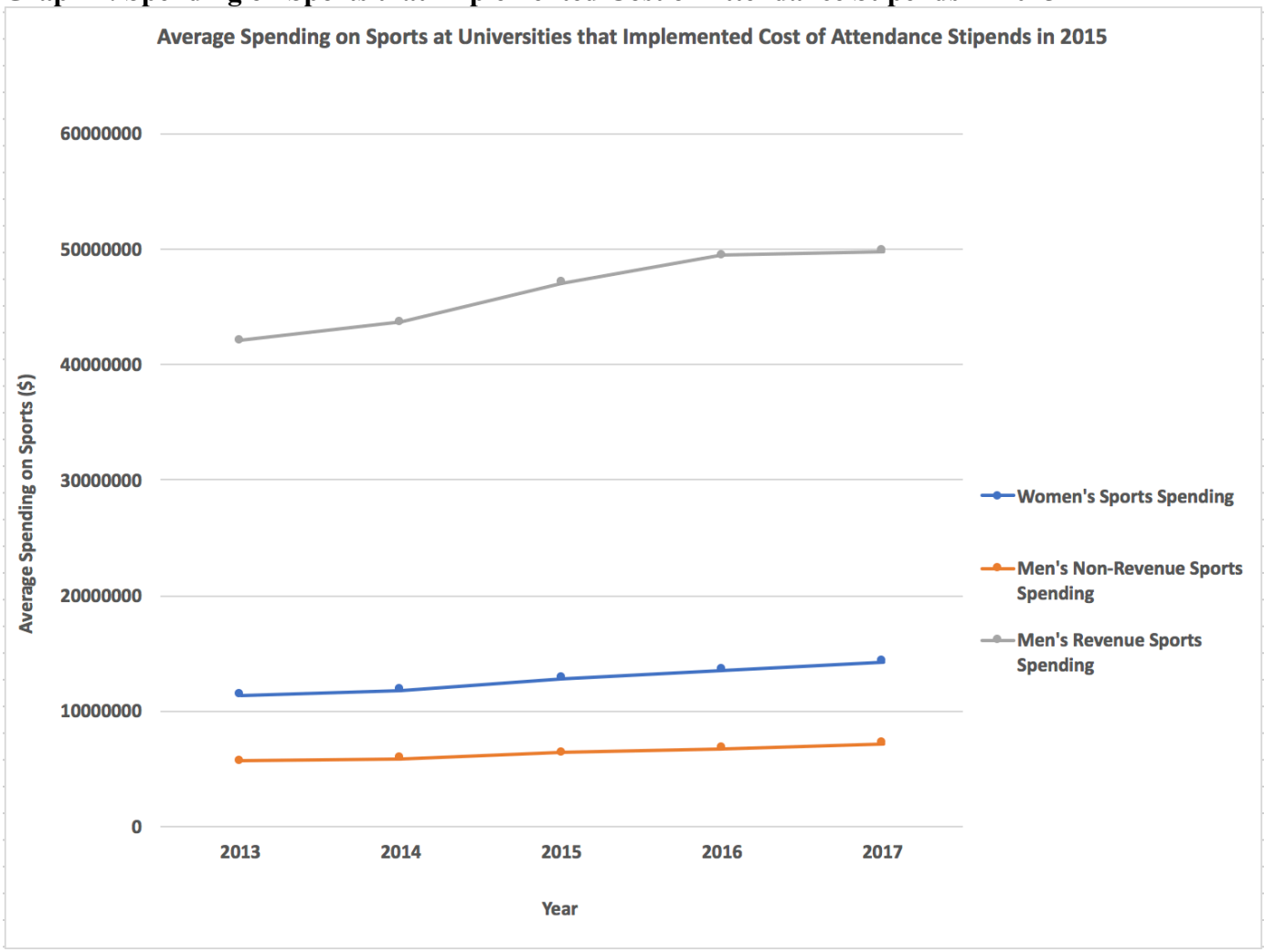
Significance Keys:
99% Confidence= ***
95% Confidence= **
90% Confidence= *

Table 4: Summary Statistics

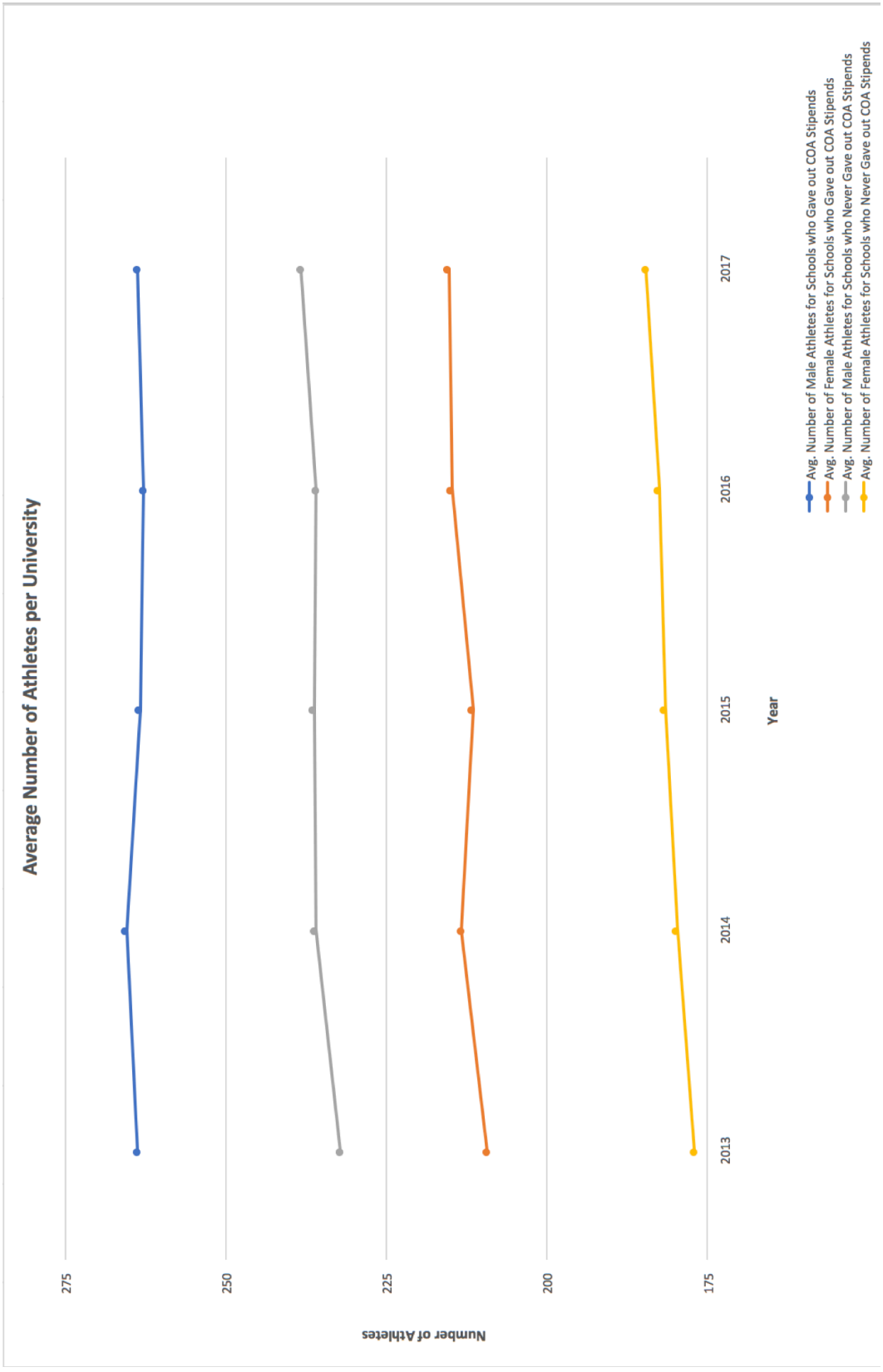
Summary Statistics: Averages								
	Schools with COA			Schools without COA				
	Pre 2015	2015 and later	Increases	Pre 2015	2015 and later	Increases	% COA Change	% Non COA Change
Total Revenue	$ 40,662,174.26	$ 46,440,363.75	$ 5,778,189.49	$ 10,983,272.99	$ 12,463,267.49	$ 1,479,994.50	0.132675571	0.126244168
Women's Spending	$ 10,070,489.60	$ 11,719,825.92	$ 1,649,336.32	$ 4,377,640.59	$ 4,958,500.99	$ 580,860.40	0.151382509	0.124432646
Men's Non-Revenue Spending	$ 4,941,444.11	$ 5,759,716.56	$ 818,272.46	$ 2,238,746.86	$ 2,531,896.09	$ 293,149.23	0.152931533	0.122897158
Men's Revenue Spending	$ 19,050,727.90	$ 22,823,278.87	$ 3,772,550.97	$ 4,308,928.65	$ 4,857,260.94	$ 548,332.30	0.180185813	0.119642364
Men's Operating Expenses	$ 3,138,697.27	$ 1,364,872.71	$ (1,773,824.56)	$ 962,550.74	$ 585,714.49	$ (376,836.25)	-0.787741531	-0.486785141
Women's Operating Expenses	$ 1,825,031.46	$ 1,763,392.37	$ (61,639.09)	$ 727,795.74	$ 700,781.63	$ (27,014.11)	-0.03435441	-0.037819597
Men's Recruting Expenses	$ 624,663.61	$ 771,496.93	$ 146,833.32	$ 197,426.79	$ 213,351.55	$ 15,924.77	0.210338736	0.077534606
Women's Recruiting Expenses	$ 268,318.73	$ 299,252.04	$ 30,933.31	$ 102,427.18	$ 109,205.80	$ 6,778.62	0.10900247	0.064060166

Appendix: Graphs

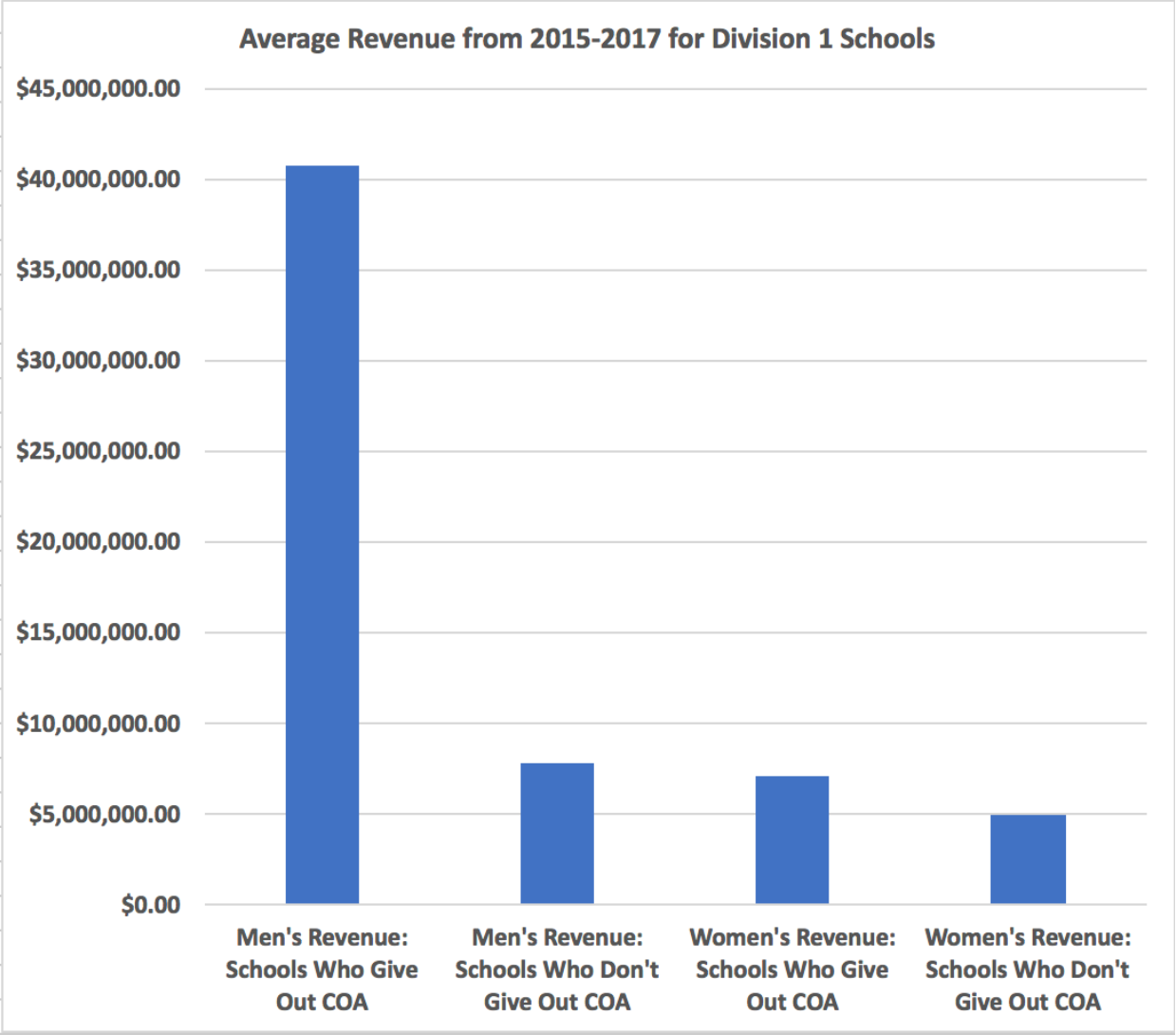
Graph 1: Spending on Sports that Implemented Cost of Attendance Stipends in 2015



Graph 2: Average Number of Athletes Per University



Graph 3: Average Revenue for Division 1 Schools (FBS & FCS)



Bibliography

1. Alexander, Elton. “New NCAA Rule Adds Money to Athletic Scholarships, but Can Strain Athletic Budgets.” *The Plain Dealer*, 7 May 2015.
2. Bradbury, John Charles, and Joshua D. Pitts. “Full Cost-of-Attendance Scholarships and College Choice.” *Journal of Sports Economics*, vol. 19, no. 7, 2017, pp. 977–989., doi:10.1177/1527002517696958.
3. Buckley, Tim. “Pay to Play? UL Looks to Fund Full Attendance Stipend for Athletes.” *The Advertiser*, Louisiana, 24 Feb. 2015, 7:27 A.M.
4. DiPaola, Jerry. “Stipend to Offset College Athletes' Costs Could Unbalance Playing Field.” *TribLIVE.com*, 26 Sept. 2015, 10:00 P.M.
5. Dunleavy, Ryan. “How Much Did Rutgers Spend in First Year of Cost of Attendance Stipends?” *Nj.com*, NJ Advance Media for NJ.com, 26 Jan. 2017
6. Fowler, Gavin. “Stipends a New Factor in NCAA Sports.” *The Daily Universe*, 1 June 2016.
7. “Impending Cost Of Attendance Stipends And Mid-Major Program Decisions.” *CollegeAD*, 8 July 2015
8. Karels, Carter. “Three Years in Cost of Attendance Stipends Paying Off.” *San Antonio Express-News*, 4 Aug. 2018.
9. Kerkhoff, Blair, and Tod Palmer. “They’re Not Paychecks, but Major College Athletes Got Extra Scholarship Stipends for First Time This School Year.” *The Kansas City Star*, 26 June 2016.
10. McNamara, Kevin. “Stipends Could Change Playing Field in College Sports.” *Providencejournal.com*, 22 Aug. 2015, 5:35 P.M.
11. Munz, Jason. “USM Will Offer Cost of Attendance.” *Hattiesburg American*, Mississippi, 1 Aug. 2015, 11:27 P.M.
12. “NCAA Scholarships Class Action.” *Hagens Berman | National Class Action Litigation Firm*.
13. New, Jake. “More Money ... If You Can Play Ball.” *Inside Higher Ed*, Inside Higher Ed, 12 Aug. 2015
14. O'Connor, John. “As JMU and W&M Are Establishing, Cost of Attendance Has Become the New Ante in Division I.” *Richmond Times-Dispatch*, 3 Aug. 2018
15. Shomaker, Calvin. “Basketball Teams to Receive Cost of Attendance Stipends.” *TheSeahawk.org*, 8 Sept. 2016.
16. Smith, Adam. “Upping the Ante: Elon Reverses Field on Providing Cost of Attendance.” *Times-News*, 29 June 2019, 5:52 P.M.
17. Teel, David. *Cost-of-Attendance Allowances for ACC Athletes Vary Widely*. Daily Press, 24 Aug. 2015, 5:04 A.M.

Bibliography For Data Collection Only

1. "Cost of Attendance." *Robert Morris University*.
2. "Do Ivy League Schools Give Athletic Scholarships?" *ScholarshipOwl*, 4 Dec. 2019.
3. "East Carolina Committed To Full Cost-Of-Attendance Funding." *East Carolina University Athletics*, 15 Apr. 2015.
4. "Impending Cost Of Attendance Stipends And Mid-Major Program Decisions." *CollegeAD*, 8 July 2015
5. "Together We Transform Thursday: June 16, 2016." *Stony Brook University Athletics*, 16 June 2016.
6. "UA Will Pay Stipends to Athletes." *Akron Beacon Journal*, 30 Aug. 2015, 11:00 A.M.
7. Buckley, Tim. "Pay to Play? UL Looks to Fund Full Attendance Stipend for Athletes." *The Advertiser*, Louisiana, 24 Feb. 2015, 7:27 A.M.
8. Carlson, Chris. "Third-Smallest Stipend in Power-Five Conferences Could Hurt Syracuse Recruiting." *Syracuse.com*, 14 Apr. 2015.
9. DiPaola, Jerry. "Stipend to Offset College Athletes' Costs Could Unbalance Playing Field." *TribLIVE.com*, 26 Sept. 2015, 10:00 P.M.
10. Equity in Athletics Database
11. Greenwell, Zach. "WKU Sets Cost of Attendance Value at $2,500 per Year." *Bowling Green Daily News*, 9 Nov. 2015.
12. Hartsell, Jeff. *Cost of Attendance Will Be Costly for Colleges*. The Post and Courier, 24 Apr. 2015.
13. Henley, Gene. "UTC Basketball Players to Get $2,000 Stipends." *Chattanooga Times Free Press*, 22 July 2015.
14. Hobson, Will. "Cost-of-Attendance Stipends Show Which Sports Colleges Want to Spend On." *The Washington Post*, WP Company, 22 May 2015, 4:42 P.M. CDT.
15. Karels, Carter. "Three Years in Cost of Attendance Stipends Paying Off." *San Antonio Express-News*, 4 Aug. 2018.
16. Katz, Andy. "ESPN Survey: Coaches Believe Differing COA Payments Will Impact Recruiting." *ESPN*, 31 Aug. 2015.
17. Kuzydym, Stephanie. "Rice Confirms It Will Pay Athletes for Cost of Attendance." *Houston Chronicle*, 25 Aug. 2015, 4:33 P.M. CDT.
18. McCue, Owen. "Athletic Department's Cost of Attendance Consistent with Cuts." *The Temple News*, 20 Oct. 2015.
19. McNamara, Kevin. "Stipends Could Change Playing Field in College Sports." *Providencejournal.com*, 22 Aug. 2015, 5:35 P.M.
20. Minium, Harry. *ODU Will Pay Full Cost of Attendance for Football and Basketball, but Not All Sports*. The Virginian-Pilot, 13 May 2016, 4:00 P.M.
21. Munz, Jason. "USM Will Offer Cost of Attendance." *Hattiesburg American*, Mississippi, 1 Aug. 2015, 11:27 P.M.
22. Newhoff, Doug. "UNI Takes Cost of Attendance Plunge." *The Courier*, 26 July 2015.
23. O'Connor, John. "As JMU and W&M Are Establishing, Cost of Attendance Has Become the New Ante in Division I." *Richmond Times-Dispatch*, 3 Aug. 2018
24. Poe, Barry. "University of South Dakota to Award Stipends to Student-Athletes." *Sioux City Journal*, 4 Sept. 2015.

25. Schad, Tom. "University of Memphis to Pay Full Cost of Attendance in Basketball, Stipends to Other Athletes." *The Commercial Appeal Memphis*, 22 Aug. 2015.
26. Schlossman, Brad Elliott. "UPDATE: UND to Pay All Scholarship Athletes Stipends in 2016-17." *Grand Forks Herald*, 2 Sept. 2015.
27. Scranton, Lyndal. "How Paying Athletes Will Damage MSU Sports." *Springfield News Leader*, 20 May 2015, 9:42 P.M. CT.
28. Search Engine: https://www.scholarships.com/college-search
29. Shomaker, Calvin. "Basketball Teams to Receive Cost of Attendance Stipends." *TheSeahawk.org*, 8 Sept. 2016.
30. Smith, Adam. "Upping the Ante: Elon Reverses Field on Providing Cost of Attendance." *Times-News*, 29 June 2019, 5:52 P.M.
31. Smith, Christopher. "Full Cost of Attendance: What Will It Mean for Power Five Players?" *Saturday Down South*, SEC, 10 Apr. 2015, www.saturdaydownsouth.com/sec-football/full-cost-of-attendance-explained/.
32. Snyder, Audrey. "Cost of Attendance Stipends Give Scholarship Student-Athletes a Little Financial Freedom." *Pittsburgh Post-Gazette*, 28 Aug. 2015, 11 P.M.
33. Solomon, Jon. "2015-16 CBS Sports FBS College Football Cost of Attendance Database." *CBSSports.com*, CBS Sports, 25 Aug. 2015
34. Sparks, Adam. "MTSU Ready to Pay Its Student-Athletes." *The Tennessean*, 24 July 2014, 11:51 P.M. CT.
35. Story, Mark. *Mark Story: The Best Time Ever to Be an OVC Basketball Player in Kentucky Is Now*. Lexington Herald Leader, 21 Nov. 2015, 6:09 P.M.
36. Suellentrop, Paul. *Wichita State Goes All-in on Cost of Attendance to Keep up with Recruiting*. The Wichita Eagle, 25 June 2016, 10:05 P.M.
37. Teel, David. *Cost-of-Attendance Allowances for ACC Athletes Vary Widely*. Daily Press, 24 Aug. 2015, 5:04 A.M.
38. USA TODAY Sports Network and News Journal. "NCAA Financial Figures Show Mixed Results for Delaware, Delaware State." *Delawareonline*, The News Journal, 6 July 2017, 6:10 P.M.
39. Wise, Jeremy. "Troy Athletes to Receive Cost of Attendance Stipends." *Dothan Eagle*, 21 Jan. 2016.
40. Zimmer, Matt. "Jacks, Coyotes Could Follow NDSU's Lead and Stipend Athletes." *Argus Leader*, 28 Aug. 2015, 5:52 P.M. CDT.